



X-Plain™

Uterine Fibroids

Reference Summary

Fibroids are common, benign tumors of the uterus. They can cause significant pain, as well as abnormal bleeding.

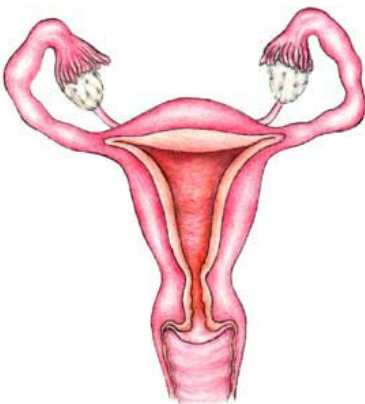
About 30% of all women may have fibroids. Most of them do not have any symptoms.

This reference summary explains uterine fibroids and their causes, symptoms, diagnosis, and treatment options.

Anatomy

The female reproductive organs include

- the vagina
- the uterus
- the fallopian tubes
- the ovaries



The female reproductive organs are located in the pelvis, between the urinary bladder and the rectum.

The ovaries have two main functions.

- The production of specialized hormones, such as estrogen and progesterone.
- Ovulation, which is the release of eggs that are needed for reproduction.

The hormones produced by the ovaries are very important in keeping ovulation regular. These hormones also prepare the inner lining of the uterus to proceed with a pregnancy.

When an egg is released, it goes down to the uterus through the fallopian tube, where it may be fertilized. If the egg is not fertilized, the egg and the inner lining of the uterus are discharged to the outside of the body during the menstrual period.

The uterus is pear shaped. It is about three inches long and has three layers. The

inner layer of the uterus is called the *endometrium*.

As menopause approaches, periods become irregular and eventually stop. Menopause occurs when the ovaries quit making hormones and releasing eggs.

When a woman gets pregnant, the fetus stays in the uterus until it is born. The uterus is able to expand greatly in size. The middle, muscular layer of the uterus creates labor contractions, which cause the baby to come out.

The lowest part of the uterus is called the *cervix*, which opens into the vagina. The vagina opens to the outside of the body between the urethra, which is the urinary bladder opening, and the rectum.

The urinary bladder is located in front of the vagina and uterus. The kidneys drain urine into the bladder through two tubes called *ureters*.

The intestines and the rectum are located above and

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behind the vagina and uterus.

Fibroids

Uterine fibroids are benign tumors in the middle layer of the uterus, the muscular layer that causes contractions during labor.

A tumor is an abnormal growth of cells and tissue. Benign tumors are non-cancerous and do not spread. Cancers are called *malignant* tumors because they do spread to other parts of the body.

Uterine fibroids are made of nodules of smooth muscle cells and fibrous tissue that develop in the wall of the uterus. Fibroids may grow as a single nodule or in clusters. They may range in size from 1/10 of an inch to 8 inches in diameter. Uterine fibroids may grow in the wall of the uterus, or they may project into the interior cavity or toward the outer surface of the uterus.

Symptoms

Most fibroids do not cause any symptoms and may be discovered during a routine examination.

Some women who have uterine fibroids may experience symptoms such as

- excessive or painful bleeding during menstruation

- bleeding between periods
- a feeling of fullness in the lower abdomen

Other symptoms of uterine fibroids include:

- frequent urination resulting from a fibroid that presses on the bladder
- pain during sexual intercourse
- low back pain

Complications

In rare cases, a fibroid may press on and block the fallopian tube, preventing fertilization and migration of the egg, which can result in infertility. After surgical removal of the fibroid, fertility is usually restored.

Causes

The factors that cause fibroids to grow in the uterus are not known.

Almost all fibroids occur in women of reproductive age or old enough to have periods. About 25% of women of reproductive age have fibroids.

Athletic women seem to have a lower prevalence of uterine fibroids than women who do not engage in any athletic activities.

Diagnosis

Family doctors and gynecologists can diagnose fibroids fairly easily after obtaining a detailed medical

history and performing a pelvic exam. Fibroids are the most frequently diagnosed tumor of the female pelvis.



Ultrasounds of the pelvis may be needed in order to see the fibroids better.

MRIs¹ and CAT² scans may also be done.

Treatment

Most fibroids do not cause any symptoms and do not require treatment other than regular observation by a doctor.

For women who experience occasional pelvic pain or discomfort, a mild, over-the-counter anti-inflammatory or painkilling drug is effective. Cases that are more bothersome may require stronger, prescription drugs.

If a fibroid is very painful or affects fertility, a surgeon can remove the tumor, leaving the uterus intact. This procedure, called *leiomyomectomy*, may weaken the wall of the uterus. Deliveries that occur after a leiomyomectomy usually must be by caesarean section.

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At times, the surgeon may decide that taking the whole uterus out along with the fibroids may be the best treatment. Such an operation is called a hysterectomy.

After a hysterectomy, a woman is no longer able to have children. A woman considering hysterectomy should discuss the pros and cons thoroughly with her doctor.

In patients who do not respond to painkillers and who are not candidates for surgery, hormone therapy may be used. Hormone therapy medications reduce estrogen levels and seem to be effective in shrinking the uterus and the fibroids.

A new type of treatment for large fibroids involves cutting off the blood supply to fibroids during a special procedure called *angiography*.

Summary

Uterine fibroids are very common, benign tumors of the uterus. Most women who have uterine fibroids do not have any symptoms and do not need treatment.

For women who need treatment, simple painkillers may be enough. Surgery is also very successful in removing fibroids and the uterus if needed.

Thanks to medical advances, patients with uterine fibroids can live a very healthy and normal life!

¹ MRI, or Magnetic Resonance Imaging, is a technique that allows the doctor to create pictures of areas inside the body by using a magnet linked to a computer.

² CAT Scan or Computed Axial Tomography scan is a radiological test that provides pictures of structures inside the body by taking multiple X-ray images.